

THE PATENT OFFICE OF THE STATE INTELLECTUAL PROPERTY OFFICE
OF THE PEOPLE'S REPUBLIC OF CHINA

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MAR 15 2004

Shanghai Patent & Trademark Law Office

Date of Dispatch
January 9, 2004

Application No.: 02143986.9	Applicant: BROTHER KOGYO KABUSHIKI KAISHA
Application Date: September 30, 2002	Agent:
Title: インクカートリッジ	

NOTICE ON OFFICE ACTION

1. ☒ According to the Request for Substantive Examination raised by the applicant and based on the provision of Item 1, Article 35 of the Patent Law, the Examiner has proceeded with the Examination as to Substance on the above mentioned application for patent for invention.
☐ According to Item 2, Article 35 of the Chinese Patent Law, the Patent Office has decided to examine the above application for patent for invention.
2. ☒ The applicant has requested that the filling date of
Mar 28, 2002 at the JP Patent Office as the priority date,
July 23, 2002 at the JP Patent Office as the priority date,
July 26, 2002 at the JP Patent Office as the priority date,
Aug 1, 2002 at the JP Patent Office as the priority date,
☒ The applicant has already submitted the copy of the first filed prior application document certified by the receiving office of the country where the application was originally filed.
☐ The applicant has not submitted the copy of the first filed prior application document certified by the receiving office of the country where the application was originally filed. It is deemed not having claimed priority according to the provision stipulated in Article 30 of the Patent Law.
☐ This application is a PCT application.
3. ☐ The applicant submitted on _____ and _____ the amendment documents.
On examination, among them,
the _____ submitted on _____ can not be accepted.
the _____ submitted on _____ can not be accepted.
Because the above amendment
☐ does not conform with the provisions of Article 33 of the Chinese Patent Law,
☐ does not conform with the provisions of Rule 51 of the Implementing Regulations of the Chinese Patent Law,
Refer to the text of the Notice for the specific reasons why the amendment cannot be accepted

4. ☒ The examination has been proceeded on the original application documents.
☐ The examination is directed at the following application documents:
 Claim _____, page _____ of the specification, page _____ of the drawing of the original application documents submitted on the date of filing.
 Claim _____, page _____ of the specification, page _____ of the drawing submitted on _____.
 Claim _____, page _____ of the specification, page _____ of the drawing submitted on _____.
 Claim _____, page _____ of the specification, page _____ of the drawing submitted on _____.
 Abstract of the specification submitted on _____, the drawing of the Abstract submitted on _____.

5. ☐ This Notice is made under the condition of no search having been conducted.
☒ This Notice is made under the condition of search having been conducted.
☒ This Notice has cited the below comparison documents (the number of which shall continue to be used in the subsequent examination procedures):

No.	Title of Document	Date of Publication (or the filing date of the conflicting Application)
1	US5283593A	Feb 1, 1994
2	JP63-207652A	Aug 29, 1988
3	US5623290A	Apr 22, 1997
4		

6. The conclusive opinion drawn from the examination:

☐ **As regards the Specification:**

- ☐ The contents of the application fall under the scope stipulated by Article 5 of the Patent Law for which no patent right shall be granted.
☐ The specification does not conform with the provision of Item 3, Article 26 of the Patent Law.
☐ The drafting of the specification does not conform with the provision of Rule 18 of the Implementing Regulations.

☒ **As regards the Claims:**

- ☐ Claim _____ does not possess the novelty as stipulated in Item 2, Article 22 of the Patent Law.
☒ Claim 1-13 does not possess the inventiveness as stipulated in Item 3, Article 22 of the Patent Law.
☐ Claim _____ does not possess the practical applicability as stipulated in Item 4, Article 22 of the Patent Law.
☐ Claim _____ falls under the scope of Article 25 of the Patent Law where no patent right is to be granted.
☐ Claim _____ does not conform with the provision of Item 4, Article 26 of the Patent Law.
☐ Claim _____ does not conform with the provision of Item 1, Article 31 of the Patent Law.
☐ Claim _____ does not conform with the definition of invention as stipulated in Item 1, Article 2 of the Implementing Regulations of the Patent Law.
☐ Claim _____ does not conform with the provision of Item 1, Rule 13 of the Implementing Regulations of the Patent Law.
☐ Claim _____ does not conform with the provisions of Rules 20 to 23 of the Implementing Regulations of the Patent Law.

Refer to the text of this Notice for the specific analyses of the conclusive opinion.

7. Based on the above conclusive opinion, the Examiner deems that:
- ☐ The applicant shall amend the application documents in accordance with the requirements raised in the text of the Notice.
 - ☐ The applicant shall discuss in his observations reasons why this application for patent can be granted a patent right, and amend the portions indicated in the text of the Notice which have been deemed as not conforming with the provisions, or no patent right shall be granted.
 - ☒ There are no substantive contents in the application for patent that can be granted a patent right. If the applicant does not present reasons or the reasons presented are not sufficient, the application shall be rejected.
8. The applicant is asked to note the following items:
- (1) According to the provision of Article 37 of the Patent Law, the applicant shall submit his observations within **four months** from the receipt of this Notice. Where, without justified reasons, the applicant does not respond at the expiration of said date, the application shall be deemed to have been withdrawn
 - (2) The applicant shall amend his application according to Article 33 of the Patent Law. The amended documents shall be in duplicate, and the form, in conformity with the relevant provisions in the Examination Guide.
 - (3) The applicant and/or his agent can not, without first making an appointment, go to the Patent Office to have an interview with the Examiner.
 - (4) The observations and/or the amended documents shall be mailed or delivered to Department of Receipt, the Patent Office of the State Intellectual Property Office. No documents shall possess legal effects if not mailed or delivered to Department of Receipt.
9. The text portion of this Notice totals 4 page(s), and includes the following attachment(s):
- ☒ duplicate copy(ies) of cited comparison document(s), altogether 3 copy(ies) 21 pages.
 - ☐

Examination Department: 2-6 Examiner(Seal): 2667

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P1718

The Text of the First Office Action

As described in the specification, the present application relates to an ink cartridge. After examination, the action is provided now as follows.

1. Independent claim 1 does not possess inventiveness, not complying with the provision of Item 3, Article 22 of the Chinese Patent Law. Reference 1 (US5283593A) has disclosed an ink reservoir, and the following technical features: "the ink reservoir comprising: an ink-receiving recess (reference number 10) having an indented surface portion; an elastic bubble foil (reference number 11) covering the opening portion of the ink-receiving recess, and capable of deforming toward the indented surface portion in association with reduction of the amount of the ink in the ink-receiving recess; and an ink residual amount detection point (reference number 15) protrusively disposed in the ink-receiving recess." (Refer to lines 2-43, page 3 of the specification of Reference 1 and Figure 1). Reference 2 (JP63-207652A) has disclosed a method for detecting the amount of the ink remaining in the ink cartridge, and the following technical features: "it includes a detection rod (reference number 4), the detection point (reference number 4a) of the detection rod is protrusively disposed in the ink-receiving recess, the other end (reference numbers 4b, 4c) of the rod extends away from the ink-receiving recess" (Refer to the abstract of Reference 2 and Figure 1). It can be seen that Reference 1 and Reference 2 have disclosed all the technical features of claim 1. The skilled persons in the art can easily envision the technical solution for which protection is sought in claim 1 by combining Reference 1 with Reference 2. The features of the detection rod are well known to the skilled persons in the art, and the combination will not bring about any unexpected technical effects. Therefore, claim 1 does not have prominent substantive features nor represents a notable progress, not possessing inventiveness.

2. The additional technical features of dependent claim 2 have been disclosed by Reference 1 (Refer to the above-mentioned paragraphs).

Therefore, claim 2 does not have prominent substantive features nor represents a notable progress, not possessing the inventiveness as prescribed by Item 3, Article 22 of the Chinese Patent Law.

3. The technical feature "the indented surface of the ink-holding portion is formed from resin" in dependent claim 3 is common sense in the art, and is well known to the skilled persons in the art. Furthermore, the skilled persons in the art can easily envision the feature "it includes a groove that extends below the indented surface portion to out from the indented surface portion, the sensor lever is positioned in the groove". It can be seen that the technical solution for which protection is sought in claim 3 will not bring about any unexpected technical effects. Therefore, claim 3 does not have prominent substantive features nor represents a notable progress, not possessing the inventiveness as prescribed by Item 3, Article 22 of the Chinese Patent Law.

4. The additional technical features "the sensor lever includes an operation arm portion, and a sensing arm portion, the operation arm portion and the sensing arm portion extend to either side of a pivot point, the ink residual amount detection point is provided on an end portion of the operation arm portion" in dependent claim 4 have been disclosed by Reference 2. Although the feature "the end portion of the sensing arm portion extending so as to be capable of confronting a sensor external from the ink cartridge" has not been disclosed (Reference 2 has disclosed the technical feature "the end portion of the sensing arm portion contacts with the sensor external from the ink cartridge"), the sensor composed of a light-emitting element and a receiving element is well known to the skilled persons in the art. The technical solution of claim 4 can be obtained if the sensor (reference number 30) of Reference 2 is replaced by said well-known sensor. It will not bring about any unexpected technical effects. Therefore, claim 4 does not have prominent substantive features nor represents a notable progress, not possessing the inventiveness as prescribed by Item 3, Article 22 of the Chinese Patent Law.

5. Dependent claims 5-9 are common sense in the art, and are well known to the skilled persons in the art. When a sensor rod is protrusively disposed in

the indented surface portion, and the ink residual amount detection point is disposed at the lowermost position of the indented surface portion, the length of the sensing arm portion is set to be longer than that of the operation arm portion to improve the accuracy of the detection. Furthermore, the weight of the sensing arm portion is set to be heavier than that of the operation arm portion, or a urging member is disposed on the sensing arm portion, so as to ensure the protrusion of the ink residual amount detection point. The above-mentioned method is well known to the skilled persons in the art, and will not bring about any unexpected technical effects. Therefore, claims 5-9 do not have prominent substantive features nor represent a notable progress, not possessing the inventiveness as prescribed by Item 3, Article 22 of the Chinese Patent Law.

6. Independent claim 10 does not possess inventiveness, not complying with the provision of Item 3, Article 22 of the Chinese Patent Law. Reference 1 has disclosed all the technical features in the preamble portion of independent claim 10 (Refer to the above-mentioned paragraphs). Reference 3 (US5623290A) has disclosed an ink cartridge, and the following technical features: "the ink cartridge (reference number 6) includes an urging means (reference number 204), when only a predetermined amount range of ink remains in the indented surface portion, the urging means urges the confronting portion in a direction that separates the confronting portion from the ink residual amount detection point while allowing portions of the flexible film other than the confronting portion (corresponding to the central portion of reference number 204) to substantially follow shape of the indented surface portion, the flexible film overcomes the urging force of the urging means when less than the predetermined amount range of the ink remaining in the tube portion to press against the ink residual amount detection point" (Refer to lines 1-29, column 9 of the specification of Reference 3, and Figures 9-10). It can be seen that Reference 1 and Reference 3 have disclosed all the technical features of claim 10. The skilled persons in the art can easily envision the technical solution for which protection is sought in claim 10 by combining Reference 1 with Reference 3. The features of the detection rod are well known to the skilled persons in the

art, and the combination will not bring about any unexpected technical effects. Therefore, claim 10 does not have prominent substantive features nor represents a notable progress, not possessing inventiveness.

7. The additional technical features of dependent claims 11, 12 have been disclosed by Reference 3 (Refer to the above-mentioned paragraphs). Therefore, claims 11, 12 do not have prominent substantive features nor represent a notable progress, not possessing the inventiveness as prescribed by Item 3, Article 22 of the Chinese Patent Law.

8. The additional technical features "the indented surface portion is shaped so that the cross-sectional surface area reduces with the distance from the opening portion to a lowermost portion of the indented surface portion, the ink residual amount detection point is positioned at the lowermost portion of the indented surface portion" have been disclosed by Reference 1 (Refer to the above-mentioned paragraphs). The feature "both ends of the plate spring abut the indented surface portion between the opening between the opening portion and the lowermost portion" has been disclosed by Reference 3. Therefore, claim 13 does not have prominent substantive features nor represents a notable progress, not possessing the inventiveness as prescribed by Item 3, Article 22 of the Chinese Patent Law.

Based on the above said reasons, none of the independent or dependent claims of this application possesses inventiveness, and there is no other substantive contents that can be granted a patent right in the specification. Thus, even if the applicant combines the claims again or further defines the claims according to the specification, this application does not have the prospect of being patented. If the applicant can not put forward any persuasive reasons to prove that said application possesses inventiveness within the time limit of making the response, this application will be rejected.



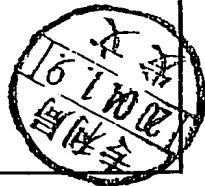
中华人民共和国国家知识产权局

邮政编码: 200233

上海市桂平路 435 号
上海专利商标事务所
侯佳猷

发文日期:

申请号: 02143986.9



申请人: 兄弟工业株式会社

发明名称: 油墨盒

第一次审查意见通知书

1. ☒ 依申请人提出的实审请求, 根据专利法第 35 条第 1 款的规定, 审查员对上述发明专利申请进行实质审查。
☐ 根据专利法第 35 条第 2 款的规定, 国家知识产权局决定自行对上述发明专利申请进行审查。
2. ☒ 申请人要求以其在:

JP	专利局的申请日	2002 年 3 月 28 日	为优先权日,
JP	专利局的申请日	2002 年 7 月 23 日	为优先权日,
JP	专利局的申请日	2002 年 7 月 26 日	为优先权日,
JP	专利局的申请日	2002 年 8 月 1 日	为优先权日,

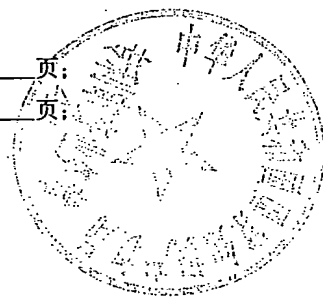
- ☒ 申请人已经提交了经原申请国受理机关证明的第一次提出的在先申请文件的副本。
☐ 申请人尚未提交经原申请国受理机关证明的第一次提出的在先申请文件的副本, 根据专利法第 30 条的规定视为未提出优先权要求。

3. ☐ 申请人于____年__月__日和____年__月__日提交了修改文件。
经审查, 其中: ____年__月__日提交的____不符合实施细则第 51 条的规定;
____年__月__日提交的____不符合专利法第 33 条的规定。

4. ☒ 审查是针对原始申请文件进行的。
☐ 审查是针对下述申请文件进行的:

说明书	申请日提交的原始申请文件的第____页; ____年__月__日提交的第____页; ____年__月__日提交的第____页; ____年__月__日提交的第____页; ____年__月__日提交的第____页;
权利要求	申请日提交的原始申请文件的第____项; ____年__月__日提交的第____项; ____年__月__日提交的第____项; ____年__月__日提交的第____项; ____年__月__日提交的第____项;
附图	申请日提交的原始申请文件的第____页; ____年__月__日提交的第____页; ____年__月__日提交的第____页; ____年__月__日提交的第____页; ____年__月__日提交的第____页;
说明书摘要	<input type="checkbox"/> 申请日提交的; <input type="checkbox"/> ____年__月__日提交的;
摘要附图	<input type="checkbox"/> 申请日提交的; <input type="checkbox"/> ____年__月__日提交的。

5. ☐ 本通知书是在未进行检索的情况下作出的。
☒ 本通知书是在进行了检索的情况下作出的。
☒ 本通知书引用下述对比文献(其编号在今后的审查过程中继续沿用):



21301
2002.1



回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收
(注: 凡寄给审查员个人的信函不具有法律效力)



中华人民共和国国家知识产权局

编号	文件号或名称	公开日期 (或抵触申请的申请日)
1	US5283593A	1994. 2. 1
2	JP 昭 63-207652A	1988. 8. 29
3	US5623290A	1997. 4. 22
4		

6. 审查的结论性意见:

☐ 关于说明书:

- ☐ 申请的内容属于专利法第 5 条规定的不授予专利权的范围。
- ☐ 说明书不符合专利法第 26 条第 3 款的规定。
- ☐ 说明书不符合专利法第 33 条的规定。
- ☐ 说明书的撰写不符合实施细则第 18 条的规定。

☒ 关于权利要求书:

- ☐ 权利要求____不具备专利法第 22 条第 2 款规定的新颖性。
- ☒ 权利要求 1-13 不具备专利法第 22 条第 3 款规定的创造性。
- ☐ 权利要求____不具备专利法第 22 条第 4 款规定的实用性。
- ☐ 权利要求____属于专利法第 25 条规定的不授予专利权的范围。
- ☐ 权利要求____不符合专利法第 26 条第 4 款的规定。
- ☐ 权利要求____不符合专利法第 31 条第 1 款的规定。
- ☐ 权利要求____不符合专利法第 33 条的规定。
- ☐ 权利要求____不符合实施细则第 2 条第 1 款关于发明的定义。
- ☐ 权利要求____不符合实施细则第 13 条第 1 款的规定。
- ☐ 权利要求____不符合实施细则第 20 条至第 23 条的规定。

上述结论性意见的具体分析见本通知书的正文部分。

7. 基于上述结论性意见, 审查员认为:

- ☐ 申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。
- ☐ 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。
- ☒ 专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。
- ☐

8. 申请人应注意下述事项:

- (1) 根据专利法第 37 条的规定, 申请人应在收到本通知书之日起的 肆 个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。
- (2) 申请人对其申请的修改应符合专利法第 33 条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。
- (3) 申请人的意见陈述书和/或修改文本应邮寄或递交给国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。
- (4) 未经预约, 申请人和/或代理人不得前来国家知识产权局专利局与审查员举行会晤。

9. 本通知书正文部分共有 4 页, 并附有下列附件:

- ☒ 引用的对比文件的复印件共 3 份 21 页。
- ☐

审查 2 部 6 室

审查员签章: 2667

完成日期: 2003-12-10

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2002. 8



回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收
(注: 凡寄给审查员个人的信函不具有法律效力)



第一次审查意见通知书正文

申请号：02143986.9

如说明书所述，本申请涉及一种油墨盒。经审查，现提出如下审查意见。

1. 独立权利要求 1 不具备创造性，不符合专利法第 22 条第 3 款的规定。对比文件 1 (US5283593A) 公开了一种贮墨容器，并具体公开了以下的技术特征“该贮墨容器包括具有凹面部的油墨收容凹部（附图标记 10）；将油墨收容凹部的敞开侧覆盖、且随着油墨收容凹部内油墨的消耗而向凹面部变形的挠性气泡箔（附图标记 11）；以及凸状配置在油墨收容凹部内的油墨残留量检测点（附图标记 15）”（参见该对比文件 1 的说明书第 3 页第 2-43 行及附图 1）；对比文件 2 (JP 昭 63-207652A) 公开了一种检测墨盒中残墨量的方法，并具体公开了以下的技术特征“具有一检测杆（附图标记 4），该检测杆的检测点（附图标记 4a）凸状配置在油墨收容部内，其另一端（附图标记 4b, 4c）向油墨收容部外延伸”（参见该对比文件 2 的摘要及附图 1）。由此可见，对比文件 1 和对比文件 2 已经披露了该权利要求 1 的全部技术特征。在对比文件 1 的基础上结合对比文件 2 中所公开的检测杆特征而得出该权利要求 1 所要求保护的技术方案，对所述技术领域的技术人员来说是显而易见的，而且两者的结合没有产生预料不到的技术效果，因此该权利要求 1 不具备突出的实质性特点和显著的进步，因而不具备创造性。

2. 从属权利要求 2 的附加技术特征也已被对比文件 1 公开（参见同上），因此该权利要求 2 也不具备突出的实质性特点和显著的进步，因而不具备专利法第 22 条第 3 款所规定的创造性。

3. 从属权利要求 3 的附加技术特征“油墨收容凹部的所述凹面



部由树脂形成”是所述技术领域中的公知常识，对所属技术领域的技术人员来说是显而易见的；而特征“具有在凹面部的下方向油墨收容凹部外延伸的槽，将传感器杆配置在槽中”是本领域技术人员容易想到的，且并未给该权利要求 3 所要求保护的技术方案带来任何意想不到的技术效果，因此从属权利要求 3 也不具备突出的实质性特点和显著的进步，因而不具备专利法第 22 条第 3 款所规定的创造性。

4. 从属权利要求 4 的附加技术特征“传感器杆具有分别向转动支点两侧延伸的动作支臂部和传感支臂部，油墨残留量检测点设置在动作支臂部的端部”已被对比文件 2 公开，而特征“传感支臂部的端部与油墨盒外的传感器可对向地延伸”尽管没有公开（对比文件 2 中公开的特征是“传感支臂部的端部与油墨盒外的传感器接触”），但这种利用由发光件和接收件构成的传感器进行检测的方式对本领域技术人员而言是显而易见的，将对比文件 2 中所述的传感器（附图标记 30）换成这种公知的传感器，就可得到该权利要求 4 所述的技术特征，且并未给该权利要求 4 所要求保护的技术方案带来任何意想不到的技术效果，因而该权利要求 4 也不具备突出的实质性特点和显著的进步，因而不具备专利法第 22 条第 3 款所规定的创造性。

5. 从属权利要求 5-9 是所述技术领域中的公知常识，对所属技术领域的技术人员来说是显而易见的，当传感器杆凸状配置在凹面部内且油墨残留量检测点位于凹面部的最低位置时，为提高检测精度，可使传感支臂部的长度比动作支臂部长；为确保油墨残留量检测点凸起，可使传感支臂部的重量大于动作支臂部的重量，或者在传感支臂部上设置施力构件；这些都本领域技术人员所容易想到的，



也并未给上述权利要求所要求保护的技术方案带来任何意想不到的技术效果，因此权利要求 5-9 也不具备突出的实质性特点和显著的进步，因而不具备专利法第 22 条第 3 款所规定的创造性。

6. 独立权利要求 10 不具备创造性，不符合专利法第 22 条第 3 款的规定。对比文件 1 公开了该独立权利要求 10 前序部分的全部技术特征（参见同上）；对比文件 3（US5623290A）公开了一种油墨盒，并具体公开了以下的技术特征“该油墨盒（附图标记 6）具有施力构件（附图标记 204），至少在油墨残留量极少的状态下，除可挠性膜与油墨残留量检测点对向的部分（即，附图标记 204 的中央部分）之外，容许其它部分大致沿着凹面部，但对该对向的部分沿远离油墨残留量检测点的方向施力，在油墨残留量极少状态后，随着油墨的减少，克服施力构件的施力，可挠性膜向油墨残留量检测点方向接近”（参见该对比文件 3 的说明书第 9 栏第 1-29 行及附图 9、10）。由此可见，对比文件 1 和对比文件 3 已经披露了该权利要求 10 的全部技术特征。在对比文件 1 的基础上结合对比文件 3 得出该权利要求 10 所要求保护的技术方案，对所述技术领域的技术人员来说是显而易见的，而且两者的结合没有产生预料不到的技术效果，因此该权利要求 10 不具备突出的实质性特点和显著的进步，因而不具备创造性。

7. 从属权利要求 11、12 的附加技术特征也已被对比文件 3 公开（参见同上），因此该权利要求 11、12 也不具备突出的实质性特点和显著的进步，因而不具备专利法第 22 条第 3 款所规定的创造性。

8. 从属权利要求 13 的附加技术特征“所述凹面部为随着从所述凹面部的开口侧的分离而剖面积逐渐减小的形状，所述油墨残留量检测点位于所述凹面部的最深部分”已被对比文件 1 公开（参见同



上)，特征“所述板簧的两端在凹面部的开口侧与所述最深部分之间与所述凹面部抵接”已被对比文件 3 公开，因此该权利要求 13 也不具备突出的实质性特点和显著的进步，因而不具备专利法第 22 条第 3 款所规定的创造性。

基于上述理由，本申请的独立权利要求以及从属权利要求都不具备创造性，同时说明书中也没有记载其他任何可以授予专利权的实质性内容，因而即使申请人对权利要求进行重新组合和 / 或根据说明书记载的内容作进一步的限定，本申请也不具备被授予专利权的前景。如果申请人不能在本通知书规定的答复期限内提出表明本申请具有创造性的充分理由，本申请将被驳回。